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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/966,914

09/27/2001

Sehat Sutardja

MP0115

5719

28285

7590

04/11/2005

KATTEN MUCHIN ZAVIS ROSENMAN (MARVELL)

IP DOCKET

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EXAMINER

WILLIAMS, ALEXANDER O

ART UNIT

PAPER NUMBER

2826

DATE MAILED: 04/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No.		Applicant(s)	
	09/966,914		SUTARDJA, SEHAT	
	Examiner		Art Unit	
	Alexander O. Williams		2826	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,4,7,8,11,12,15,16,19,20,24,25 and 27-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,4,7,8,11,12,24,25 and 27-30 is/are allowed.
- 6) ☒ Claim(s) 15,16,19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/3/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Serial Number: 09/966914 Attorney's Docket #: MP0115

Filing Date: 9/27/01;

Applicant: Sutardja

Examiner: Alexander Williams

Applicant's Amendment, filed 1/3/05 is acknowledged.

Applicant's Drawing filed 1/3/05 has been acknowledged.

Claims 1, 2, 5, 6, 9, 10, 13, 14, 17, 18, 21-22, 26 and 31-33 have been canceled.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 15, 16, 19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Hofstee et al. (U.S. Patent # 6,507,115 B2).

For example, in claims 15, Hofstee et al. (figures 1 to 5) specifically figure 2 show a method of forming integrated chip package **200**, comprising: providing a semiconductor chip **204** having a conductor pattern on a first surface; electrically coupling the conductor pattern on the semiconductor to an intermediate substrate **206-1,206-2,206-3,206-4** via a first set of conductive bumps **209**; providing a heat sink **218** having side portions (**sides of 218**); thermally coupling a second side of the semiconductor chip to the heat sink so that heat generated from the semiconductor chip flows towards the heat sink; arranging a planar package substrate (**portion between the bottom of 202 and the top of 220**) below and spaced apart (by 222) from the

Art Unit: 2826

intermediate substrate; thermally isolating (by 202) the heat sink from the planar package substrate; and electrically coupling the intermediate substrate to a first surface or the planar package substrate via a plurality of bond wires **212**.

In claim 16, Hofstee et al.'s intermediate substrate formed from a material selected from silicon.

In claim 19, Hofstee et al.'s intermediate substrate includes a circuit plane selected from interconnect planes, power planes and ground planes.

In claim 20, Hofstee et al. further include forming conductive pads **214,228** on a second surface of the planar package substrate operable to electrically couple the integrated chip package to a circuit board (inherit) via a second set of conductive bumps **216**.

Claims 3, 4, 7, 8, 11, 12, 24, 25 and 27-30 are allowed.

Response

Applicant's arguments filed 1/3/05 have been fully considered, but are moot in view of the new grounds of rejections detailed above to claims 15, 16, 19 and 20.

The listed references are cited as of interest to this application, but not applied at this time.


Field of Search	Date
U.S. Class and subclass: 257/686,685,723,777,778,737,738,734,712,704,710,717, 720,532,724,728,725,528	3/17/03 11/3/03 4/12/04 8/30/04 4/6/05
Other Documentation: foreign patents and literature in 257/686,685,723,777,778,737,738,734,712,704,710,717, 720,532,724,728,725,528	3/17/03 11/2/03 4/12/04 8/30/04 4/6/05
Electronic data base(s): U.S. Patents EAST	3/17/03 11/2/03 4/12/04 8/30/04 4/6/05

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander O Williams whose telephone number is (571) 272 1924. The examiner can normally be reached on M-F 6:30-7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272 1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AOW
4/5/05



Alexander Williams
Primary Examiner